# IS THE OPTICAL TRANSCEIVER THE MOST OVERLOOKED COMPONENT IN THE DATACENTER?





# TRADITIONAL ARCHITECTURE

#### Number of connections

No. Access Switches x 2 + No. Aggregation Switches x 2

8 Access switches

4 Aggregation switches

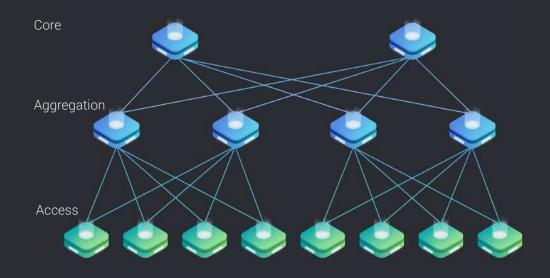
24 Connections

100 Access switches

25 Aggregation switches

250 Connections

### 3 Tier Architecture





### MODERN ARCHITECTURE

#### **Number of connections**

No. Leaf Switches x No. Spine Switches

8 Leaf switches

4 Spine switches

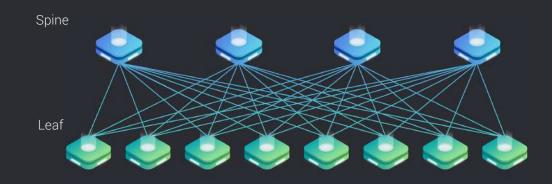
32 Connections

100 Leaf switches

8 Spine switches

**800 Connections** 

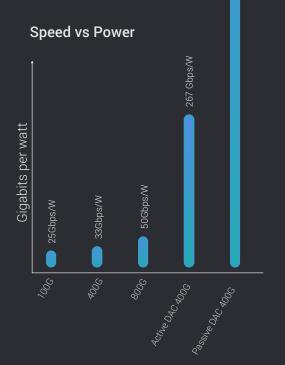
### **Spine-Leaf Architecture**







GBITS PER WATT IS STEADILY INCREASING..



## ... AND POWER SUPPLY AND COOLING BECOMES MORE CRITICAL



Speed & Power

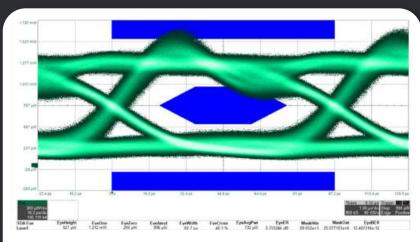






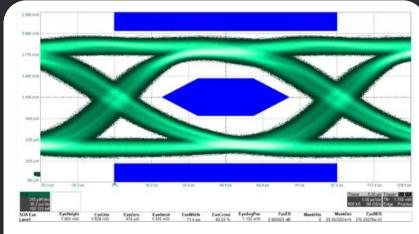


### **ARE ALL TRANSCEIVERS THE SAME?**



### Eye diagram of poor-quality transceiver

- Bad soldering
- Low quality laser
- Poor production process
- Low or no testing
- No component tracking



### Eye diagram of high-quality transceiver

- Precise soldering
- High quality laser
- Well defined production process
- Rigorous testing
- Tracking on component level



## THE GOLDILOCKS ZONE



Never compromise on quality, ever



Reduce both CAPEX and OPEX with the right optical partner



3rd party compatible transceivers can unlock untapped potential



# IS THE OPTICAL TRANSCEIVER THE MOST OVERLOOKED COMPONENT IN YOUR DATACENTER?

